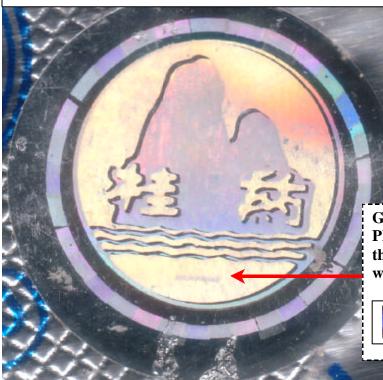
WARNING!!!!

AT LEAST SEVEN TYPES OF FAKE ARTESUNATE ARE BEING SOLD IN
MAINLAND SE ASIA

HERE ARE SOME KEY FEATURES TO AID IDENTIFICATION OF FAKE GUILIN PHARMA
ARTESUNATE BLISTER PACK HOLOGRAMS

BLISTER PACKS WITH FAKE HOLOGRAMS CONTAIN NO ARTESUNATE AND ARE
THEREFORE POTENTIALLY LETHAL

Genuine 'Guilin Pharma' Hologram



The photograph, left, is of the genuine hologram attached to the blister packs of the genuine Guilin Pharma artesunate.

Below are pictures of 6 types of fake artesunate holograms with their distinguishing features. NB - hologram colour depends on the light – please do not use the colours printed here to judge whether a hologram is genuine or fake

Genuine hologram has the legend 'GUILIN PHARMA' here. Visible with the naked eye, as a thin strip below the waves, but can only be read with a microscope. Letters are ~ 0.1mm high



Guilin Pharma developed their hologram as a security device in response to the first type (**'Type 1'**) of counterfeit artesunate circulated which had no hologram attached. As a result, any 'Guilin Pharma' artesunate now circulating without a blister pack hologram is almost certainly counterfeit or expired. Subsequently, at least 6 different counterfeit Guilin Pharma artesunate holograms have been found on fake artesunate blister packs in Southeast Asia [Burma (Myanmar), Cambodia, Lao PDR, Thailand (only on western border) and Vietnam] and there are probably more types circulating.

Please note that we have changed the numbering system for different types of fake artesunate and no longer use the term 'Generation'.

Genuine and counterfeit holograms are ~ 13 mm in diameter. Other features of the counterfeit artesunate that differ from the genuine product include – poor printing of bar codes on packets, poor printing of codes on blister packs, codes on blister packs printed with the font made of numerous small dots, poor stamping of code 'AS' and score line on tablets, raised edges of tablets, unusually late expiry date in relation to date of manufacture (> 3 years) and expiry date before date of manufacture! Counterfeits tend to be cheaper than the genuine product.

Although, regrettably, the counterfeiters have targeted the Guilin Pharma product, it is possible that other fake artesunate products exist. Therefore, drug regulatory authorities should be vigilant and regularly monitor the quality of artesunate available on the market. If you are uncertain as the authenticity of any artesunate sample based on the characteristics of the packaging, please check by chemical analysis of the tablet: contacts for chemical analysis are available from the addresses on page 4.

Counterfeit Artesunate – Type 2



A foil sticker. Not a true hologram; dull, not refractile when tilted in the light. Not well crafted. Easily distinguished.

Grey outer ring

Inner ring rectangles do not vary in colour

No 'Guilin Pharma' legend

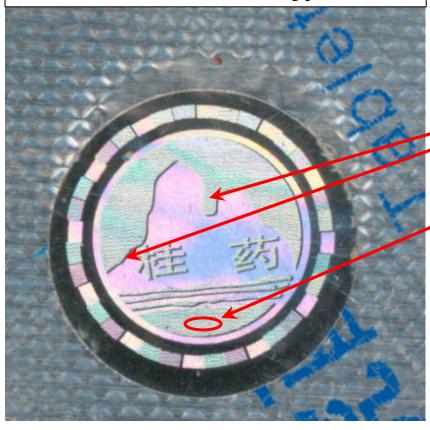
The most recent blister packs seen with this fake hologram are printed with:

Code = '010401'

Date of 'manufacture' = '04/01'

Date of expiry = 04/04

Counterfeit Artesunate – Type 3



Well crafted hologram, but lacks the Guilin Pharma legend below the waves and the mountain outline differs. The printing on the blister pack is not clear

Mountain outline differs

No 'Guilin Pharma' legend

To date, all blister packs seen with this fake hologram are printed with:

Code = '000902'

Date of 'manufacture' = '09/00'

Date of expiry = 09/03

Counterfeit Artesunate – Type 4



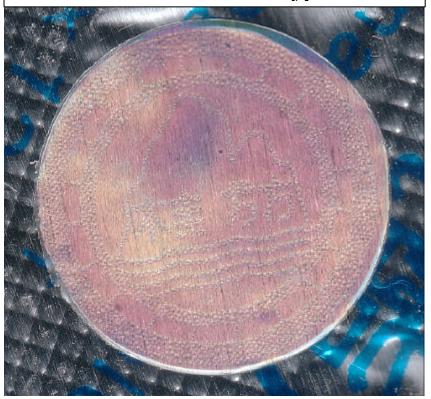
Well crafted hologram – mountain outline similar to that on the genuine hologram, but lacks the 'Guilin Pharma' legend below the waves. The printing on the blisterpack is clear

No 'Guilin Pharma' legend

To date, all blister packs seen with this fake hologram are printed with:

Code = '000901' or '020305' Date of 'manufacture'='09/01' or '03/02' Date of expiry date = '09/04' or '03/05'

Counterfeit Artesunate – Type 5

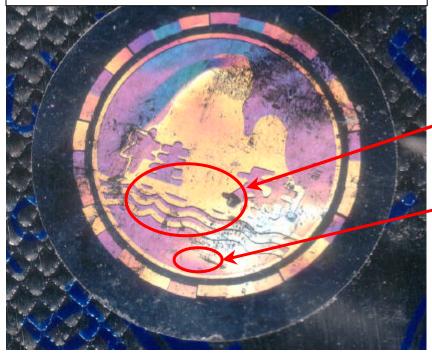


Foil sticker, not a hologram, with pattern composed of thousands of dots copying the genuine Guilin Pharma artesunate hologram pattern. Easily distinguished

To date, all blister packs seen with this fake hologram are printed with:

Code = '010401'
Date of 'manufacture' = '04/01'
Date of expiry = '04/04'

Counterfeit Artesunate – Type 6



Well crafted hologram - but the junction between the mountains and the waves differs from that depicted on the genuine hologram

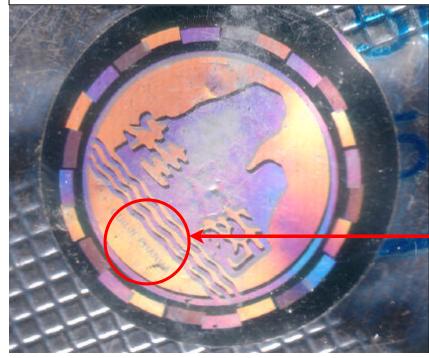
Crescents, rather than a continuous blank line, between mountain and waves

No 'Guilin Pharma' legend

The printing on the blister pack seen with this fake hologram is smudged. The packet, with identical hologram affixed is printed with:

Code = '030101'
Date of 'manufacture = '01/03'
Date of expiry = '01/06'

Counterfeit Artesunate – Type 7



Well crafted hologram - with 'GUILIN PHARMA' written below the waves but in an abnormally large font

'Guilin Pharma' legend present but the letters are of larger font than those on the genuine hologram and can be read with the naked eye. Letters are ~ 0.3 mm high.



The blister pack seen with this fake hologram is printed with:

Code = '000801'
Date of 'manufacture' = '08/00'
Date of expiry = '08/09'.

Note the abnormally long interval between 'manufacture' and expiry.

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Please distribute: Copies available from paul@tropmedres.ac or arjen@tropmedres.ac